

copper, manganese, molybdenum and zinc. This sampling will also serve as a final check to verify that the designated minimum amount of topsoil has been uniformly spread over the area.

231.200 Suitability of Topsoil Substitutes or Supplements

Soils stockpiled or designated to be used as substitute material have been sampled and their chemical and physical properties discussed in the text and presented in table form. Selected overburden materials have been chosen for use as substitute topsoil materials during final reclamation. Most of the sites in the permit area were originally disturbed in the early 1900's and no topsoil was removed and stockpiled. Where no suitable substitute topsoil materials exist on site, substitute materials will be imported from the borrow areas. Some disturbed areas have substitute materials stockpiled in the form of mine pads, berms, embankments or uncontaminated areas. These materials have been tested and appear to be suitable for use as substitute topsoil material based on total depth, texture, percent coarse fragments, PH, areal extent and physical and chemical tests. On site field trials support the conclusion that these soils can successfully be utilized for final reclamation.

Physical and chemical results for each substitute soil site are presented and discussed next.

Hiawatha Area

U.S. Fuel Company proposes to utilize topsoil and substitute topsoil materials from Borrow Areas A, Lower Preparation Plant and Upper Rail Storage Yard (Exhibit II-4A) to reclaim disturbed areas associated with the Hiawatha preparation plant, slurry ponds and coal refuse embankments as well as the North Fork Vent Portal site. Analyses of the substitute soil areas indicate they are suitable for revegetation and their use will cause the least amount of disturbance to achieve compliance with regulatory requirements.

Five potential borrow area sites have also been designated and shown on Exhibit II-4A. These sites would only be utilized in the event the existing proposed sites couldn't provide adequate material. These potential borrow areas are designated B, C, D, E and the Ridge Area.

Information is presented for the borrow areas in Appendix II-4; however, at this time it appears that, of these, only Borrow Areas A and F and the Lower Preparation Plant and Upper Rail Storage Yard will have to be utilized. Borrow Area "F" was utilized to cover Pond 4 and refuse pile #2 and was then reclaimed. Borrow Area "A" was utilized to reclaim Pond 5 main cell and was then reclaimed, the remainder of borrow area "A" will be used to reclaim pond 5A. The Lower Preparation Plant and Upper Rail Storage Yard Borrow Areas should provide the substitute topsoil necessary to complete the Hiawatha Area reclamation.

File in:

☐ Confidential

☐ Shelf

☒ Expandable

Refer to Record No

Date

In C 007001.2007 Incoming

For additional information

Total Available Topsoil

The results of detailed pedon descriptions as contained in Appendix II-4, Section 1, confirm that the following substitute topsoil is available:

Borrow Area	Borrow Depth (ft)	Substitute Topsoil Volume (cu yds)	
			(Used)
A	7.0	190,291	(114,594)
B	4.5	89,661	
C	4.5	64,251	
D	1.83	30,114	
E	5.0	53,000	
F	4.0	42,000	(42,000)
Total		469,317	
Used		(156,594)	
Available		(312,723)	

The volumes available from each horizon are given in Table 1.5, Appendix II-4. The available volumes support the proposed reclamation plan, which calls for the utilization of Borrow Area F to reclaim the Refuse Pile No. 2 and Slurry Pond 4 areas. Borrow area A will be used to reclaim Slurry Pond 5 and 5A. It is the permittee's plan to utilize the in situ soils underlaying some of the disturbed areas as substitute topsoil so that borrow areas B, C, D, and E should not be needed. Table II-12 shows the current status of the use of the substitute topsoil materials.

The results of laboratory tests indicate that, while the substitute topsoil material has the desired characteristics for a plant growth medium, some nutrients and soil amendments are necessary to enhance the revegetation effort (see Appendix II-4, Section 1). Soil tests will be conducted immediately prior to seeding the redistributed topsoil to ensure that fertilizer mixes and application rates are based on the soil conditions at the time of reclamation.

Lower Preparation Plant Area, Ridge Area, and Upper Rail Storage Yard Area

On April 2 and 3, 1997, Three additional areas were evaluated for use as substitute topsoil material. These areas were the Lower Preparation Plant Area, the ridge southwest of Slurry Pond No. 1, and the Upper Rail Storage Yard. These areas are shown on Exhibit II-4A. A report describing the testing and evaluation is contained in Appendix II-4, Section 3. In-place volumes from the borrow areas were multiplied by a 15% swell factor to obtain the actual volumes of available substitute topsoil material.

Preparation Plant In Situ Soils

The preparation plant, and affected areas has approximately 52.98 acres associated with it. This is the non-refuse area identified on Exhibit II-4A. Of this approximately 20 acres southeast of the prep. plant and approximately 8 acres southeast of the Middle Fork-North Fork road junction can be reclaimed by utilizing the in-situ soils with only a minor amount of surface regrading. The remaining acreage will be reclaimed by removing the upper 1.5 feet of topsoil and subsoil material and temporarily stockpiling it while the area is being regraded to final contour. Where areas are covered with coal, the surface will be graded and the coal material will be hauled to Slurry Pond No. 1 for disposal.

In order to evaluate the reclamation suitability of these soils, a total of eight representative soil samples were collected from the disturbed areas associated with the preparation plant and the upper storage yard. The laboratory test results (Table II-7) indicate that the soils have a good overall reclamation suitability and will support acceptable stands of vegetative growth.

Sample 1 (Exhibit II-4A) was taken from a hand dug test pit which was excavated some

2.5 feet in depth. Only the upper 8 inches showed signs of previous disturbance. Beginning at the surface, as the test pit was advanced, a representative sample of the material was collected and placed in the sample bag until a composite sample for the total excavated depth was obtained.

Sample 2 was taken from a hand dug test pit which was excavated 3.0 feet in depth. Only the upper 4 to 6 inches showed signs of previous disturbance. A composite sample for the total excavation depth was collected.

Sample 3 was collected from an undisturbed, in-situ soil profile on the upper side of a shallow road bank. The exposed face of the soil was removed and a channel sample of the upper three feet was collected and composited.

Sample 4 was collected from a hand dug test pit which was excavated 2.0 feet in depth. The upper 6 to 8 inches of the soil profile was previously disturbed. A composite sample was collected as the test pit was excavated.

Samples 5 and 6 (Exhibit II-4A) were collected from the upper storage (railroad) yard and represent the disturbed soils in the Upper Coal Storage Yard. Both test pits were excavated to a depth of 1.5 feet and composite samples from each pit were collected as the hole was advanced.

Sample 7 was collected from a bucket auger hole excavated in an undisturbed soil profile. The pit was excavated to a depth of 3.5 feet and a composite sample was collected.

Topsoil Stockpile East of Slurry Pond No. 4

This stockpile is shown on Exhibit II-4A. It was created in 1988 when Refuse Pile No. 2 was extended north and east of Slurry Pond No. 4. The dimensions of the pile are 130 feet long by 60 feet wide and 6 feet high. The minimum slope of this pile is 0, the top is flat. The maximum slope is 37 degrees. The stockpile contains approximately 1,488 cubic yards of topsoil. The pile has been revegetated with seed mix No. 1 (less shrubs) described in Table III-3 of Chapter III. Prior to placement of the topsoil the existing vegetation was removed and the surface scarified. The new material was then placed with sufficient compaction to ensure long term stability while not creating a deleterious condition to plant root growth. The stockpile is protected by a surrounding berm-ditch structure. This stockpile was utilized on slurry pond #4

Topsoil Stockpile East of Slurry Pond No. 5

This stockpile was created when the toe of Slurry Pond No. 5 was extended eastward in 1983. The topsoil, located within the bounds of the defined disturbed area and shown on Exhibit II-4A, is protected from erosion by both a primary runoff control diversion which is constructed around the topsoil pile and a diversion ditch further to the west which will intercept all flow from upstream runoff. The dimensions of the pile are 48 feet by 68 feet by an average height of 8.5 feet and contains 1,028 cubic yards of topsoil. The pile was revegetated with an approved seed mix on hand at that time.

Topsoil Stockpile West of Equipment Storage Yard

Topsoil in this pile was salvaged prior to construction of the equipment storage yard. It consisted of the upper 6 inches of material removed from the area of the yard. The topsoil was stockpiled in a long low berm immediately west of the yard. It measured 515 feet long, 50 feet wide and had an average height of 4.7 feet giving a total volume of 4,480 cubic yards. The top was flat. The maximum side slope was 27 degrees. The stockpile was located on a relatively flat slope (less than 8 percent). It was emplaced with sufficient compaction to ensure stability but still allow the growth of vegetation. It was protected from erosion by a surrounding containment ditch. This stockpile was gouged, fertilized, reseeded and mulched in April, 1992. The seed mix was seed mix No. 2 described in Table III-4 of Chapter III. This stockpile was utilized on Slurry Pond #5 Main Cell in 1997.

Future reseeded of the stockpiles will be done using seed mix No. 2, excluding shrubs or an approved interim seed mix. The seeds will be hand broadcast using the rates given in Table III-4 of Chapter III. The proposed seed mixture contains legumes for nitrogen fixation, and forbs and grasses for soil stabilization. Regulations permit soil stockpiles in Utah to be stabilized with a single plant species or even none if some other method of soil stabilization and protection is used such as a straw mulch tied down by a nylon net. Any topsoil stockpiles which do not have adequate cover will be revegetated by roughening the surface, reseeded, fertilizing and mulching so as to provide cover equivalent to the reference area for that location.

Table II-12 Topsoil and Topsoil Borrow Volumes

Topsoil Stockpiles	Acreage	Depth (ft)	Volume (yds) Available	Volume (yds) Used
Hiawatha Area				
East of Slurry Pond No. 4	N/A	N/A		1,488
East of Slurry Pond No. 5	N/A	N/A	1,028	
West of Equipment Storage Yard				4,480
Middle Fork Area				
Middle Fork Stockpile	N/A	N/A	354	
South Fork Area				
South Fork Stockpile	N/A	N/A	1,206	
Total			2,588	5,968
Topsoil Borrow Areas				
Hiawatha Area				
Borrow Area "A"	16.87	7.0	75,697	114,594
Borrow Area "F"	6.7	4.0		42,000
Lower Preparation Plant Borrow Area	3.93	3.33	24,300 ¹	
Upper Rail Storage Yard Borrow Area	6.30	6 avg	75,543 ¹	
Middle Fork Area				
Substitute Topsoil Site "A"	2.55	1.5	6,169	
Substitute Topsoil Site "B"	0.66	1.5	1,596	
Substitute Topsoil Site "C"	1.18	1.5	2,855	
South Fork Area				
Substitute Topsoil Site "A"	1.49	1.5	3,605	
Substitute Topsoil Site "B"	1.13	1.5	2,734	
Total			192,499	156,594
Additional Potential Topsoil Borrow Areas				
Borrow Area "B"	12.35	4.5	89,661	
Borrow Area "C"	8.85	4.5	64,251	
Borrow Area "D "	10.2	1.83	30,114	
Borrow Area "E"	6.6	5.0	53,000	
Ridge Area	0.9	0-24	12,300 ¹	

¹See Appendix II-4, Section 3, for volume calculations.

North Fork Area Reclamation

The North Fork ventilation portal and stream diversion (Exhibit II-4D) contains 1.5 acres (See Table II-13, RA-26, 27). The ventilation portal (1.0 acres) was reclaimed using in situ soils northeast of the portal. The 0.5 acre area containing the stream diversion and pipeline to the King 2 mine portal was also reclaimed using the in situ soils.

Middle Fork Area Reclamation

The Middle Fork mine yard, loadout facility and sediment pond, as delineated on Exhibit II-4C, contains a total disturbed area of 11.8 acres. The storage areas adjacent to the Middle Fork haul road comprises an additional 3 acres. Reclamation area RA-23 (sediment pond) will use the material in the pond bank for reclamation. The area between the bath house and water tank and the area west of the King 5 mine portals (RA-24) will be reclaimed using in situ material. The 3 acre storage areas (RA-25) will also be reclaimed using in situ material. The remaining 9.4 acres (RA-22) will be reclaimed with material from Middle Fork substitute topsoil areas A, B, and C.

South Fork Area Reclamation

The South Fork mine yard, conveyor corridor, truck loadout and sediment ponds, as delineated on Exhibit II-4B, contain a total disturbed area of 12.6 acres, excluding the haul road. The 0.6 acre area between the bath house and water tank (RA-20) will be reclaimed utilizing in situ soils. Little, if any, regrading will be required in this area. The 1.87 acre area comprising sediment pond D009 and sediment pond D011 (RA-21) will utilize soil material in the pond embankments. The 6.41 acre mine yard and bath house area (RA-19) will be reclaimed with material from the South Fork substitute topsoil areas A and B. The 1.84 acre conveyor corridor will utilize in situ soil materials contained in its embankment. The 1.94 acre coal stockpile and truck loadout area will be reclaimed with topsoil from the South Fork topsoil stockpile at the mouth of the canyon. A strip of land bounded by the conveyor, the coal stockpile and the haul road (approximately 1 acre) has received interim revegetation and will require only minor reclamation. The South Fork haul road occupies approximately 1.93 acres within the South Fork disturbed area. See Appendix II-3 for a discussion of the soil materials available in the vicinity of the conveyor corridor and truck loadout area.

Hiawatha Area Reclamation

There are a total of 221.36 disturbed area acres within the lower Hiawatha area, excluding the canyon roads. Unfortunately, due to the age of the facilities, there has been very little topsoil or fill material salvaged and stockpiled for reclamation from these areas. Table II-13 shows the acreage by area. Exhibit II-4A shows the locations of the areas. Some of the area has already been reclaimed since it is no longer needed.

The following is a summary of the status of areas which are currently under reclamation at this site as of Spring 2008:

Area	Total Acres	Reclaimed Acres	Topsoiled Acres	Remaining
RA-5 Slurry Pond 4 / Refuse Pile 2	26.37	26.37	26.37	-0-
RA-1 Affected Areas	29.11	19.83	-0-	9.28
RA-7 Preparation Plant Area	23.87	5.51	-0-	18.36
RA-6 Borrow Area "F"	9.12	9.12	-0-	-0-
RA-2 Slurry Pond 5 Main Cell	40.39	40.39	40.39	-0-
RA-4 Borrow Area "A"	16.87	5.28	-0-	11.59
Total	145.73	106.5	66.76	39.23

A complete description of all of the disturbed areas, acreage and topsoil volumes is found in Table II-13.

Slurry Pond "4" has been completely reclaimed. The area on the northeast corner (approx. 1 acre) required recontouring and topsoiling. The topsoil pile East of Slurry Pond No. 4 was used to reclaim this area. An additional 577 yards of substitute material was needed to complete Pond 4, which came from Borrow Area "A". The affected areas were reclaimed by vacuuming coal fines and/or topsoiling the areas. Areas being topsoiled were ripped to a depth of 18" to 24" before topsoil is placed.

The main cell of slurry pond 5 has been completely reclaimed. The reclamation was completed in 1999. An affected area 1.91 acres in size exists West of Slurry Pond "5". Portions of this area may require additional topsoil, which will come from Borrow Area "A". Following topsoiling activities in 1998, Borrow Area "A" was surveyed for remaining volumes (completed 6-6-08). Any areas in Borrow Area "A" which have reached the maximum depth of substitute topsoil were ripped and seeded with the seed mix No. 1 (Table III-6). The remaining areas were seeded with an interim seed mix as described in R645-301-331. Approximately 5.28 acres of borrow area "A" has been reclaimed. The remaining acreage will be used to reclaim slurry pond 5A.

Non-Refuse Areas

Approximately 5.51 acres of the preparation plant area has been reclaimed at this time. The remainder of the preparation plant area and affected non-refuse areas will be reclaimed utilizing in-site soils. Where greater than 50% coal (visual estimation) or other contaminants (oil, grease, etc.) are present on the surface, this material will be removed and taken to a Slurry Pond for final burial. The remaining in situ soils will then be graded and prepared for seeding according to the plan.

Non-refuse areas include the remainder of the preparation plant area, affected areas, borrow areas and sediment ponds. These areas are shown on Exhibit II-4A, designated as areas RA-1. Portions of which have been completed.

When all mining operations have ceased and the facilities will no longer be required, the facilities will be dismantled. After the facilities are dismantled, all foreign debris and materials will be removed and disposed of, as previously described, in preparation for final reclamation. Only selected portions of the preparation plant and upper storage yard areas will need to be backfilled as a part of the reclamation activity (see Preparation Plant In Situ Soils in Operation Plan). Therefore, prior to any post-mining reclamation activity which would significantly harm or destroy the topsoil resources in these areas, approximately the upper 1.5 feet of topsoil and appropriate subsoil materials will be removed from selected areas and temporarily stockpiled and protected. The soil to be temporarily stockpiled will be removed using both front end loaders and large track mounted dozers. The soil thus removed will be taken to a temporary stockpile, to be located near the North and Middle Fork road junction (as shown on Exhibit II-4A) and protected from the deleterious effects of erosion by installation of straw bale dikes or temporary runoff diversions around the perimeter of the stockpile.

After the appropriate areas have been backfilled or significantly regraded, the stockpiled topsoil will be redistributed. It is anticipated that only a portion of the total area will require these measures. The area southeast of the prep. plant and the area between the railroad spur and the Middle Fork haul road can achieve the final grade without significant regrading and without temporarily stockpiling the topsoil, as only the upper few inches of topsoil have been previously disturbed, the present grade is near the proposed final grade and the soils present have sufficient chemical and physical properties to support vegetative regrowth and enhance reclamation. Laboratory tests (Appendix II-4) substantiate that the soil materials in the preparation plant area are adequate (both chemically and physically) to support vegetation and that no additional soils will need to be added to the area to enhance reclamation.

When the final grade has been achieved with a stable area having positive drainage, then the area will be prepared for seeding. Initially the regraded surface will be ripped to a depth of 18 to 24 inches. Stockpiled soil material will then be redistributed and disked along the contour. Next, fertilizer and then seed will be applied by broadcasting, drilling or hydro seeding. Mulch will be applied at the rate of 1 ton per acre and will be either crimp-disced into the soil or bound to the soil with a binding agent added in the hydro seed mixture.

Slurry Ponds and Refuse Embankments Area

Where practical, U. S. Fuel Company is contemporaneously regrading the slurry ponds and refuse piles. These areas are being covered with the soil from substitute soil borrow sites east of the preparation plant site and slurry ponds. Because of the volume of slurry and refuse, regrading can not be done to original contour. However, the embankment slopes will be made less steep in order to reduce erosion. Structural foundations will be covered with available backfill material.

Sedimentation ponds and diversion structures will be removed and backfilled after vegetation is established on the reclaimed slurry ponds and refuse piles and after cleanup of any contributing affected areas. Topsoil has been salvaged for the sedimentation ponds. Once the sediment ponds are regraded, the stockpiled topsoil will be redistributed.

Revegetation will be primarily native species selected from reference areas on the property. Chapter III provides a complete list of the seed mixes to be used. Planting will occur during periods of greatest moisture conditions.

Proposed post-mining grading plans for the Hiawatha plant site and loadout area are shown on Exhibits V-13 (A, B, and C). Due to the amount of waste material stored at this site, no attempt will be made to achieve a final configuration similar to an assumed predisturbance configuration.

A shrink factor of five percent was used in the earth work cut and fill volume calculations. The earth work volume computations are based on the cross sections shown on Exhibits V-13 (A, B, and C). Quantity computations, based on planimetered cross section areas and the average end area method, are included in Appendix V-15. The total cut volume available is 1,495,577 cubic yards and the total fill volume is 1,490,117 cubic yards.

The existing sediment ponds and collector and cutoff ditches will be left in place until successful revegetation has been demonstrated and approved by DOGM for that drainage area. At that time they will be removed, regraded and revegetated.

Regrading Refuse Materials

Exhibit V-13 (A, B, & C) in Chapter V shows the slurry ponds and refuse storage areas. It depicts the projected regrading of the ponds when the coal refuse is regraded and recontoured. The coal fines have an approximate inplace density of 45 pounds per cubic foot and the coal refuse has an average inplace density of 90 pounds per cubic foot.

Mining operations were cut back from three mining sections operating three production shifts per day to one mining section operating one production shift per day on April 20, 1991. The preparation plant was dismantled in 1992. Underground mining was temporarily suspended in 1993. No refuse material has been generated since May of 1991.

At the time the preparation plant was dismantled, there was not a market for the coal fines in Pond #4. Therefore, refuse pile #2 and slurry pond #4 were regraded by moving some of the coarse refuse over the pond fines. At the same time, the outslope was reduced to less than a four horizontal to one vertical. Sixteen inches of substitute topsoil was placed on the pond from borrow area "F". This pond was reseeded, along with borrow area "F" in October of 1996.

The coal fines in slurry pond #5 were of a better quality than those in slurry pond #4. As a result, most of the coal fines in slurry pond #5 were sold prior to reclamation. Then, the refuse embankments were used to fill in the pond. The outslopes on slurry pond #5 were reduced to about five horizontal to one vertical. Borrow area "A" was utilized to provide substitute topsoil for slurry pond #5. Pond 5 along with some affected areas and borrow area "A" were reseeded in October 1999.

Similarly, for final reclamation of slurry ponds #1 and #5A the coal refuse embankments will be used to fill in the ponds. Starting at the top of the slurry pond embankments the coal refuse material will be moved to the interior of the slurry ponds, then spread and compacted. The ponds will be shaped as close as possible to the final contours, depending upon how many coal fines, if any, remain in the ponds. If this configuration cannot be met due to the removal of coal fines, an amendment will be submitted to the Division before any substantial changes are made to the regrading plan. On top of the ponds the grade may be shallow, whereas the outer slopes will have a maximum grade of 3 horizontal to 1 vertical. The final thickness of the stabilized refuse piles will vary from 0 to approximately 40 feet in depth.

When the final grade has been achieved with a stable area having positive drainage, the topsoiling operations can begin. Initially the regraded surface will be ripped about every 5 feet to a depth of 18 to 24 inches. Stockpiled or substitute soil material will then be hauled to and spread over the regraded area. The substitute topsoil will be transported to the slurry pond area by scrapers, belly dump and/or end dump trucks and spread by a bulldozer. Grade stakes will be placed on 200 foot centers to aid in establishing a uniform layer. The topsoil will be spread in such a way that the surface will be rough and variable, rather than smooth. The degree of roughness will depend upon the equipment used for spreading the required topsoil and fertilizer. After fertilizing or prior to hydroseeding, the topsoil will be disced or lightly scarified if its surface has compacted over time.

After the topsoil has been spread over the area, random samples will be collected to determine the required amounts of nutrients and soil amendments for the redistributed topsoil. A minimum of twelve random samples will be collected and composited for each slurry pond site. The composite samples will be submitted for laboratory analyses to determine the nutrient levels. The nutrient parameters to be measured are discussed under R645-301-231.300 "Soil Testing Plan". This sampling will also serve as a final check to verify that the designated minimum amount of topsoil has been uniformly spread over the area.

After completion of the topsoil preparation, the seed will be applied by either broadcasting, drilling or hydroseeding. The final step will be application of a mulch at the rate of at least 1.0 tons-per acre. The mulch will be either crimp-disced into the soil or bound to the soil with a binding agent. If hydroseeding is used, seed may be applied simultaneously with the mulch, but after the fertilizing operation.

Vegetation is currently growing on the coal refuse embankments and on areas contiguous to the embankments. The presence of vegetation plus the laboratory analysis substantiate that higher than acceptable limits of toxic or acidic elements are not present in the refuse or slurry.

As proven by laboratory analyses of trace metals, the coal refuse is non-toxic and non-acid forming, therefore, does not require burial. Field trial test plot studies based on 6, 12 and 16 inch cover of topsoil and conducted in accordance with DOGM and OSM recommendations have been implemented (see Appendix III-5). Based on these studies a 16 inch cover of topsoil will be used for reclamation of the slurry ponds and refuse embankments. U. S. Fuel has demonstrated with a 7 year test plot study that the coal refuse can successfully be revegetated utilizing 16 inches of substitute topsoil over the "worst case" coal refuse material.

However, after rough grading to final contour but prior to topsoil placement, the refuse material on Slurry Pond #1 will be sampled again and analyzed for the following parameters: pH*, electrical conductivity*, SAR (sodium absorption ratio)*, sodium*, magnesium*, calcium*, selenium, boron, aluminum, iron, manganese, zinc and acid-base potential. Those parameters marked with an * will be analyzed using a saturated paste extract. The selenium analysis will be done using the DTPA extract method.

U. S. Fuel and HCC have covered approximately 66.76 acres, and plans to cover the remaining acres associated with the coal refuse banks, tracks, and slurry ponds with 16 inches of substitute topsoil. See Table II-13. To place a 16 inch average cover of substitute topsoil material over the areas (including the volumes already completed) will require approximately 274,202 cubic yards. The total available topsoil and topsoil borrow, as shown in Table II-12, 357,649 cubic yards. Substitute topsoil borrow areas located as shown on Exhibit II-4A can provide more topsoil than currently required.

Table II-13 Reclamation Area Topsoil Volumes

Area	Location	Acreage	Topsoil Depth	Topsoil Volume (cu yd)	Topsoil Source
RA-1	Sed. Ponds / Misc. Areas	9.29	N/A	N/A	In Situ Material
RA-2	Slurry Pond 5 Main Cell	0.0	16 in.	0.0	Reclaimed
RA-3	Slurry Pond Cell 5-A	15.51	16 in.	33,364	Borrow Area A, Pond "5" Topsoil pile
RA-4	Borrow Area A	11.59	N/A	N/A	In Situ Material, Equip. Yard Topsoil pile
RA-5	Slurry Pond 4/Refuse Pile 2	0.0	0.0	56,725	Reclaimed
RA-6	Borrow Area F	0.0	N/A	N/A	Reclaimed
RA-7	Preparation Plan/Depot Area	18.36	N/A	N/A	In Situ Material
RA-8	Warehouse / Equipment Yard	2.87	N/A	N/A	In Situ Material
RA-9	Refuse Pile No. 1	17.51	16 in.	37,666	Lower Preparation Plant Borrow Area Upper Rail Storage Yard Borrow Area
RA-10	Slurry Pond No. 1	19.39	16 in.	41,710	Upper Rail Storage Yard Borrow Area
RA-11	Ridge Borrow - Non-refuse Refuse	0.90	N/A	N/A	In Situ Material
		1.92	16 in.	4,130	Upper Rail Storage Yard Borrow Area
RA-12	Railroad Tracks West of Shop	6.38	16 in.	13,724	Upper Rail Storage Yard Borrow Area
RA-13	Upper Rail Storage Yard	9.14	N/A	N/A	In Situ Material
RA-14	Truck Shop Yard	2.01	N/A	N/A	In Situ Material
RA-15	Runaway Truck Lane	1.51	N/A	N/A	In Situ Material
RA-16	Middle Fork Roads	11.6	N/A	N/A	Roads to remain in place post-mining
RA-17	South Fork Coal Loadout	1.94	6 in.	1,565	South Fork Topsoil Stockpile South Fork Borrow Site B
RA-18	Overland Conveyor Route	1.84	N/A	N/A	In Situ Material
RA-19	King 6 Mine Pad	6.38	6 in.	5,147	South Fork Borrow Sites A and B
RA-20	Water Tank / Access Road	0.6	N/A	N/A	In Situ Material
RA-21	South Fork Sediment Ponds	1.87	N/A	N/A	In Situ Material (Sediment pond banks)
RA-22	King 4 and 5 Mine Pad	9.40	6 in.	7,583	Middle Fork Borrow Sites A, B and C
RA-23	Middle Fork Sediment Pond	1.22	N/A	N/A	In Situ Material (Sediment pond bank)
RA-24	Water Tank / Access	1.18	N/A	N/A	In Situ Material
RA-25	Timber / Tire Storage Areas	3.00	N/A	N/A	In Situ Material
RA-26	North Fork Diversion / Pipe	0.0	N/A	N/A	Reclaimed
RA-27	North Fork Ventilation Portal	00	N/A	N/A	Reclaimed
RA-28	North Fork Road	0.0	N/A	N/A	Road to remain in place post-mining

Reclamation of Roads

Canyon Roads

The roads in Middle Fork and North Fork will not be totally reclaimed but will be left in place to support the post mining land use as discussed in Chapter IV. The South Fork and Middle Fork roads, comprising of approximately 11.6 acres, will be reclaimed to an unimproved condition by removing and disposing of the pavement, ripping the underlying surface and revegetating with plant species favorable to wildlife. The South Fork Road and its access through the warehouse and equipment yards are claimed by carbon county and will not be reclaimed. This are has been included in Exhibit II-4A under the exclusionary boundary. Existing drainage structures will be left in place to serve a single lane road. The full width of the existing subgrades will be left as is and no regrading to approximate original contour is proposed. This will allow the width of the road to remain adequate for the post-mining land uses, of which timbering is one of the approved uses. Fertilizer, seed and mulch will be applied by hand broadcasting or by use of farm type equipment. Seed mixtures 1 or 2 will be used in the vicinity of Hiawatha and seed mixture No. 3 (less nursery grown stock) will be used at higher elevations. Mulch will be applied at the rate of 1.5 tons per acre and will be crimped into the soil by discing.

Access Road to Sediment Pond D003

A short unpaved access road exists between the preparation plant area and sediment pond D003 (see Exhibit II-4A). Only limited excavation was necessary to construct the road, therefore, it will be reclaimed by ripping the surface and revegetating the insitu soils. Fertilizer, seed and mulch will be applied by hand broadcasting or by use of farm type equipment. The soil is the same Haverdad series comprising substitute borrow areas B, C, and D. Seed mix No. 1 for sagebrush dominated borrow areas (described in Chapter III) will be used. Mulch will be applied at the rate of 1.5 tons per acre and will be crimped into the soil by discing.

Truck Runaway Spur to Middle Fork Haul Road

The truck runaway spur is shown on Exhibit II-4A (RA-15). The only excavation required to construct the road was to blade off the vegetation, cut a runoff diversion ditch and install a 24 inch culvert. A mound of gravel (approximately 18 inches high) was placed down the center of the road to retard potential runaway vehicles. Reclamation will involve removing the culvert and gravel and regrading the diversion ditch. The surface of the disturbed area will then be ripped to a depth of 18 inches and the insitu soils revegetated. Fertilizer, seed and mulch will be applied by hand broadcasting or by use of farm type equipment. Seed mix No. 2 will be utilized. Mulch will be applied at the rate of 1.5 tons per acre and will be crimped into the soil by discing.

FISH AND WILDLIFE PLAN - U.S. FUEL PERMIT AREA

Three major concerns must be addressed in a wildlife protection plan for a coal mining facility situated such as the U.S. Fuel operation in Hiawatha. First, one must devise a plan to minimize the destruction of wildlife habitat during facility construction, and determine how to restore that habitat after completion of mining. Second, an assessment of operating impacts to wildlife must be made, and again a mitigation plan to minimize these impacts should be devised. Finally, any unique wildlife impacts (e.g. construction within a critical habitat as defined in section 7 of the Endangered Species Act of 1973) need to be assessed and mitigated.

In the case of King IV, King V and King VI and their associated prep-plant at Hiawatha, most of the options connected with protecting and/or minimizing such wildlife impacts related to construction have been precluded. The facilities are in place and very little additional construction is planned. To date, approximately 360 acres have been disturbed. Approximately 112 acres of the 360 developed acres will not be reclaimed after the mine closes, see Table III-3. This consists of the town of Hiawatha, railroad (owned by Utah Railway), and paved roads. Another 53 acres may be disturbed during topsoil borrow operations. These 53 acres, plus the 250 acres of disturbed lands that will not remain as town or roads will be reclaimed to wildlife and range habitat.

TABLE III-3
ACREAGES OF AREAS NOT TO BE RECLAIMED WITHIN THE U. S. FUEL PERMIT AREA

<u>HIAWATHA AREA</u>	<u>ACRES</u>
ROADS	30.3
RAILROAD YARD	15.2
TOWN	66.3
TOTAL	111.8

AQUATIC AND RIPARIAN HABITATS

There are no fishes residing in the watersheds associated with King IV, V, and VI mines, therefore, the management strategy for aquatic and riparian habitats need be only concerned with protecting wildlife values. The perennial stream flows have limited value as aquatic habitats, but do support furbearers such as beaver; in addition, these flows ensure the continued existence of the narrow riparian habitat alongside the streams. The value of this community is exemplified by the fact that over 50 percent of the species utilizing the U.S. Fuel permit area can be found associated with riparian habitat. Also, U.S. Fuel is aware of Executive Order 11988 that mandates protection of riparian habitat by federal Deer Movement.

**Table 5-7
Reclamation Timetable**

Activity	Start (Beginning of Month #)	Finish (End of Month #)
Slurry Pond 4 and Refuse Pile 2: Regrade and topsoil pond 4 and Refuse Pile 2		Completed
Mitigate coal fine impacted areas East and South of Slurry Pond 4, Northeast area	March 1999	May 1999
Reseed coal fine impacted areas	Oct. 1999	Oct. 1999
Slurry Pond 5 Main Cell: Topsoil Pond 5 Main Cell Mitigate coal fine impacted area Reseeded coal fine impacted area	1997 Aug. 1999 Oct 1999	Oct. 1999 Oct. 1999 Oct 1999
Final Cessation of Operations		
Remove Equipment from Mine Pads	1	3
Remove Structures King 4 (including asphalt)	2	5
Remove Structures King 6 (including asphalt)	3	15
Reclaim North Fork Ventilation Portal		Completed
Remove and regrade the pipeline and other remaining disturbed areas in North Fork	*July 1999	*September 1999
Reseed remaining disturbed areas in North Fork	*October 1999	*October 1999
Contour King 4 (except sed. ponds)	6	15
Contour King 6 (except sed. ponds)	16	25

Table 5-7
Reclamation Timetable (CONT.)

Reseeding (unless otherwise approved by the Division)	1 st October after topsoiling	Same Month
Remove Yard Rails	4	12
Contour #1 Pond and #1 Refuse Pile	26	34
Remove Structures and Stored Equipment in the Hiawatha Area	12	45
Topsoil #1 Pond and #1 Refuse Pile	35	45
Contour and Topsoil Remaining Hiawatha Area	46	52
Contour Pond 5A	53	58
Topsoil Pond 5A	58	64
Reclaim Sediment Ponds and Borrow Area A	65	67
*Reclaimed 5-28 AC	October 1999	October 1999
Reclaim Roads	68	72

*Note: These Dates are estimated as the actual documentation was destroyed in the Hiawatha Office fire in April 2005.

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CHAPTER VIII

R645-301-800 BONDING AND INSURANCE

HIAWATHA COAL COMPANY
HIAWATHA, UTAH

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BONDING AND INSURANCE

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Exhibit 8-1A	Hiawatha Processing Plant and Waste Disposal Site Phase 1 Bond Release
Exhibit 8-1D	North Fork Phase 1 Bond Release 2008

R645-301-800 BONDING AND INSURANCE

This chapter describes Hiawatha Coal Company bonding and insurance liability requirements and gives a detailed bonding cost estimate for reclamation of existing disturbed surface areas. No additional surface disturbance is proposed during the renewed permit term.

810 Through 812.700 DIVISION RESPONSIBILITIES

R645-301-820 REQUIREMENT TO FILE A BOND

Hiawatha Coal Company is currently bonded in the amount of \$3,779,000. Of this amount \$1,450,000 is carried in the form of a corporate surety bond with the Insurance Company of North America and \$2,329,000 is carried by Hiawatha Coal Company in the form of a self bond. The liability of these bonds is for the duration of coal mining and reclamation operations. Both bonds are included in Appendix VIII-2. Included in this chapter is a revised bonding cost estimate based on the reclamation plan and changes in operations since initial Permit approval.

The permit area is shown on Exhibit IV-3. The bonds cover individual disturbed areas within the permit boundaries. These disturbed areas are delineated on Exhibits V-4 through V-13C. The revised cost estimate gives individual costs for each specific area.

R645-301-830 DETERMINATION OF BOND AMOUNT

In order to determine a bond amount the following cost estimate is given. It is based on DOGM's guidelines and reclamation procedures described throughout the permit. More specifically, reclamation procedures are described under R645-301-240 (Soils), R645-301-340 (Biology) and R645-301-540 (Engineering). Due to the complexity of operations, bonding costs are estimated for five separate areas. These areas, with their associated yards, structures and access roads are referenced as follows.

HIAWATHA COAL COMPANY PERMIT AREA RECLAMATION SITES

- 1 **Hiawatha Processing Plant and Waste Disposal Sites**
- 2 **North (Right) Fork of Miller Creek Surface Facilities**
- 3 **Middle Fork of Miller Creek Surface Facilities**
- 4 **South (Left) Fork of Miller Creek Surface Facilities**
- 5 **Substitute Topsoil Borrow Sites**

Bonding costs have been determined by reference to current (2008) editions of the Rental Rate Blue Book, the Means Site Work Cost Data Book and the Caterpillar Performance Handbook. Other costs, not defined in these books, such as seed mixtures, fertilizer and revegetation equipment are obtained from regional suppliers. Table VIII-1 gives a listing of demolition and equipment unit costs. Hourly equipment costs were derived by dividing the Blue Book monthly rental rates by an average 22 days per month, and eight hours per day. Estimated hourly operating costs, also provided in the Blue Book, and hourly operator costs including profit and overhead provided in the Means Site Work Cost Data book are then added to the hourly rental rates to give the unit costs. Structure removal costs, taken from the 2008 Means Site Work Cost Data book (where listed) are also given in Table VIII-1.

As noted in the reclamation plan, structures such as concrete foundations and slabs and sewer and water lines which exist beneath or will be covered by the final graded surface will be left in place. Building demolition costs expressed in cubic yards of steel or concrete also include disposal costs. (No disposal costs are included for concrete footers or walls which can be easily backfilled along with other material in the cut and fill process.)

Earthwork area-volume balance calculations for each site are given in Appendix VIII-1. Maps showing existing structures, final surface configurations and final surface cross sections are included in Chapter V (Engineering). Reclamation plans given Under R645-301-240 (Soils), 340 (Biology) and 540 (Engineering) discuss backfilling operations, topsoil removal, storage and replacement and revegetation procedures.

Reclamation areas specified in the cost estimate may not agree exactly with the areas described in the reclamation plans given in other chapters. This is because specific reclamation operations overlap in some cases and in other cases larger areas have been assumed to allow for unforeseen conditions which may occur at the time of reclamation.

Structure removal costs are given in Appendix VIII-4 Demolition Cost. Some structures have been added and others removed since the original plan approval. The unit train loading facility, included in the original bond estimate, was never built and is no longer proposed. A few small buildings in the vicinity of the preparation plant have been removed. A stacking conveyor extending north of the preparation plant and an aerial pipeline between the preparation plant and the resin plant have been added. Additional portals and supporting conveyor structures originally proposed for the Middle Fork mine yard were not constructed and are no longer proposed. Several conveyor support trusses, the belt transfer building and the Foreman's building in the Middle Fork Mine yard have been removed. A new screening, crushing and truck loading silo facility has been added in the Middle Fork truck loadout area. The dimensions of existing structures have been re-examined and cubic foot volumes may differ from the original values in some cases.

(1) Reclamation on sections 0+00 through 16+00 will consist of minor re-grading, coal removal and topsoil on track areas.

Exhibit V-13 shows the revised configuration of the refuse piles and slurry impoundments. Since the date of the original bond estimate additional refuse has been added to Slurry Ponds 1, 4 and 5 and Refuse Pile No. 2. No additional refuse has been added to Refuse Pile No. 1, however, its configuration has changed slightly due to its top surface and south embankment being modified in connection with coal stockpiling operations. Refuse from the top and south embankment has been relocated to the north embankment.

The proposed re-graded surface configurations shown in the revised plans and cross-sections for the Hiawatha area differ from the original plans in that they have been designed to more closely approximate the configuration proposed in the reclamation plan. Appendix VIII-1 gives mass balance calculations for re-grading operations. It should be noted that although additional refuse has been deposited, the total volume of material to be re-graded (1,495,600 cubic yards) is only slightly larger than that given in the original estimate. This is due in part to the design of the final configuration mentioned above and in part to a more precise estimate of the volume of existing material. The current estimate is based on cross-sections taken at 100 foot intervals throughout the refuse disposal area. It should also be noted that the amount of refuse deposited during the original five year term is considerably less than projected. Actual mine production was only around 600,000 tons per year rather than the one million tons per year projected. In recent years the percentage of refuse generated has been reduced due to better controls on cutting rock underground. Also, more unwashed coal has been marketed directly for this same reason. No changes have been made to the final surface configurations originally proposed for the other sites in the permit area.

Equipment production estimates for various cut and fill, grading and tilling operations are given in Table VIII-2. These estimates are based on recommendations given in the Caterpillar Performance Handbook. Earthwork costs located in appendix VIII-4 summarize reclamation costs for each major site.

Since the preparation plant and refuse disposal areas were constructed prior to the Act, no topsoil was removed. Topsoil associated with the recent expansion of Slurry Pond No. 5 and Refuse Pile No. 2 has been removed and stockpiled near the toe of Slurry Pond No. 4 and near the toe of Slurry Pond No. 5 (Exhibit V-9). These two small piles containing a combined volume of 2,500 cubic yards are rather insignificant and the majority of required topsoil will be derived from substitute topsoil borrow areas A, B, C and D (Exhibit V-9). As stated in the reclamation plan, a portion of the preparation plant area (including the upper railroad yard) will be reclaimed using insitu disturbed soils. Some of the insitu soils in the upper railroad yard will need to be hauled to the railroad grade between the preparation plant and the upper railroad yard.

Hiawatha Coal Company has demonstrated, by a seven year field trial study (see Appendix III-5), that the coal refuse can successfully be re-vegetated utilizing a maximum of 16 inches of substitute topsoil over the "worst case" coal refuse material. A 16 inch depth of topsoil has, therefore, been assumed for this revised bond estimate.

Access roads to the mine sites in North, Middle and South Forks are not proposed to be reclaimed (see Post-Mining Land Use Plans in Chapter IV).

Re-vegetation will be conducted as discussed under R645-301-341 in Chapter II (Soils) and R645-301-341

R645-301-840 GENERAL TERMS AND CONDITIONS OF THE BOND

The general terms and conditions of the bonds can be determined by review of copies of the bond documents contained in Appendix VIII-2.

R645-301-850 BONDING REQUIREMENTS

See bonding documents in Appendix VIII-2.

R645-301-860 FORMS OF BONDS

Hiawatha Coal Company is currently bonded in the amount of \$3,005,000. Of this amount 2,838,000 is carried in the form of an irrevocable letter of 167,000 is carried by a US Treasury Note with the Division of Oil Gas and Mining.

R645-301-870 REPLACEMENT OF BONDS

No response required by applicant.

R645-301-880 BOND RELEASE APPLICATION

If a bond release is requested an application will be filed with the Division at a time appropriate for evaluation of reclamation success. Reclamation time tables are given under R645-301-240 in Chapter II (Soils). Within 30 days after an application for bond release has been filed with the Division a newspaper advertisement will be placed in a local newspaper. The advertisement will contain the permittee's name, permit number and approval date, notification of the precise location of the land affected, the number of acres, the type and amount of the bond filed and the portion sought to be released, the type and appropriate dates of reclamation work performed, a description of the results achieved as they relate to the operator's approved reclamation plan and the name and address of the Division to which written comments, objections, or requests for public hearings and informal conferences on the specific bond release may be submitted pursuant to R645-301-880.600 and R645-301-880.800. In addition, as part of any bond release application, the applicant will submit copies of letters which he or she has sent to adjoining property owners, local governmental bodies, planning agencies, sewage and water treatment authorities, and water companies in the locality in which the coal mining and reclamation operation took place, notifying them of the intention to seek release from the bond.

R645-301-890 TERMS AND CONDITIONS OF LIABILITY INSURANCE

A copy of United States Fuel Company's liability insurance certificate is given in Appendix VIII-3.

The following 3 pages (not including this one),
belong to Chapter 8

Appendix VII-1

Tables 1,2 and 3

This page is not to be inserted into the MRP, this page is only to inform you where the tables belong; as there are no page numbers on them.

TABLE 1
AREA-VOLUME BALANCE SHEET
SLURRY POND NO. 5 AND 5A

CUT					FILL (5% SHRINK FACTOR)				
STATION	END AREA	AVERAGE AREA	DISTANCE	VOLUME	STATION	END AREA	AVERAGE AREA	DISTANCE	VOLUME
(SQ. FEET)	(SQ. FEET)	(SQ. FEET)	(FEET)	(CUBIC YARD)	(SQ. FEET)	(SQ. FEET)	(SQ. FEET)	(FEET)	(+ 5%) (CUBIC YARD)
0+00	0				0+00	0			
1+00	5,333	2,667	100	9,876	1+00	0		0	100
2+00	26,278	15,806	100	58,539	2+00	0		0	100
3+00	12,494	19,386	100	71,800	3+00	0		0	100
4+00	13,674	13,084	100	48,459	4+00	13,672	6,836	100	26,584
5+00	9,597	11,636	100	43,094	5+00	15,993	14,833	100	57,682
6+00	8,817	9,207	100	34,100	6+00	16,272	16,133	100	62,738
7+00	8,545	8,681	100	32,152	7+00	16,750	16,511	100	64,209
8+00	8,128	8,337	100	30,876	8+00	16,021	16,386	100	63,721
9+00	8,079	8,104	100	30,013	9+00	15,029	15,525	100	60,375
10+00	8,175	8,127	100	30,100	10+00	15,534	15,282	100	59,428
11+00	8,755	8,465	100	31,352	11+00	17,580	16,557	100	64,388
12+00	8,397	8,576	100	31,763	12+00	16,102	16,841	100	65,493
13+00	21,866	15,132	100	56,043	13+00	0	8,051	100	31,309
14+00	22,372	22,119	100	81,922	14+00	0	0	100	0
15+00	8,188	15,280	100	56,593	15+00	12,811	6,406	100	24,910
16+00	3,867	6,028	100	22,324	16+00	17,308	15,060	100	58,565
17+00	3,782	3,825	100	14,165	17+00	16,239	16,774	100	65,230
18+00	11,066	7,424	100	27,496	18+00	0	8,120	100	31,576
19+00	2,224	6,645	100	24,611	19+00	0	0	100	0
20+00	0	1112	100	4,119	20+00			100	
TOTAL					TOTAL				
739,396					736,209				

TABLE 2

AREA-VOLUME BALANCE SHEET

SLURRY POND NO. 4 AND REFUSE PILE NO. 2

CUT					FILL (5% SHRINK FACTOR)				
STATION	END AREA (SQ. FEET)	AVERAGE AREA (SQ. FEET)	DISTANCE (FEET)	VOLUME BANK (CUBIC YARD)	STATION	END AREA (SQ. FEET)	AVERAGE AREA (SQ. FEET)	DISTANCE (FEET)	VOLUME (+ 5%) (CUBIC YARD)
0+00	0				0+00	0			
1+00	2,811	1,406	100	5,206	1+00	0		0	0
2+00	2,517	2,664	100	9,867	2+00	2,721	1,361	100	5,291
3+00	2,024	2,271	100	8,409	3+00	8,619	5,670	100	22,050
4+00	3,749	2,887	100	10,691	4+00	10,422	9,521	100	37,024
5+00	3,572	3,661	100	13,557	5+00	11,328	10,875	100	42,292
6+00	3,693	3,663	100	13,454	6+00	12,812	12,070	100	46,939
7+00	4,287	3,990	100	14,778	7+00	11,695	12,254	100	47,653
8+00	5,865	5,076	100	18,800	8+00	8,580	10,138	100	39,424
9+00	8,125	6,995	100	25,907	9+00	4,877	6,729	100	26,166
10+00	11,994	10,060	100	37,257	10+00	2,688	3,783	100	14,710
11+00	15,665	13,830	100	51,220	11+00	1,319	2,004	100	7,791
12+00	13,104	14,385	100	53,276	12+00	0	660	100	2,565
13+00	1,433	7,269	100	26,920	13+00	0	0	100	0
14+00	0	717	100	2,654	14+00	0	0	100	0
15+00	0	0	100	0	15+00	0	0	100	0
16+00	0	0	100	0	16+00	0	0	100	0
17+00	0	0	100	0	17+00	0	0	100	0
18+00	0	0	100	0	18+00	0	0	100	0
19+00	0	0	100	0	19+00	0	0	100	0
20+00	0	0	100	0	19+00	0		100	
TOTAL					TOTAL				
291,996					291,904				

TABLE 3
AREA-VOLUME BALANCE SHEET
SLURRY POND NO. 1 AND REFUSE PILE NO. 1

CUT					FILL (5% SHRINK FACTOR)					
STATION (SQ. FEET)	END AREA (SQ. FEET)	AVERAGE AREA (SQ. FEET)	DISTANCE (FEET)	VOLUME BANK (CUBIC YARD)	STATION (SQ. FEET)	END AREA (SQ. FEET)	AVERAGE AREA (SQ. FEET)	DISTANCE (FEET)	VOLUME (+ 5%) (CUBIC YARD)	
0+00	0				0+00	0				
1+00	2,019	1,010	100	3,739	1+00	0		0	100	0
2+00	3,935	2,977	100	11,026	2+00	61	31	31	100	119
3+00	7,514	5,725	100	21,202	3+00	598	330	330	100	1,281
4+00	7,914	7,714	100	28,570	4+00	3,645	2,122	2,122	100	8,250
5+00	12,736	10,325	100	38,241	5+00	2,393	3,019	3,019	100	11,741
6+00	15,843	14,290	100	52,924	6+00	2,148	2,271	2,271	100	8,830
7+00	11,239	13,541	100	50,152	7+00	5,104	3,626	3,626	100	14,101
8+00	9,319	10,279	100	38,070	8+00	13,213	9,159	9,159	100	35,616
9+00	3,845	6,582	100	24,378	9+00	11,875	12,544	12,544	100	48,782
10+00	5,584	4,715	100	17,461	10+00	9,262	10,569	10,569	100	41,100
11+00	5,909	5,747	100	21,283	11+00	7,885	8,574	8,574	100	33,341
12+00	4,044	4,977	100	18,431	12+00	9,464	8,675	8,675	100	33,734
13+00	3,367	3,706	100	13,724	13+00	10,157	9,811	9,811	100	38,152
14+00	2,363	2,865	100	10,611	14+00	8,344	9,251	9,251	100	35,974
15+00	2,374	2,369	100	8,772	15+00	4,404	6,374	6,374	100	24,788
16+00	1,772	2,073	100	7,678	16+00	5,407	49,066	49,066	100	19,077
17+00	2,051	1,912	100	7,080	17+00	2,370	3,889	3,889	100	15,122
18+00	904	1,478	100	5,472	18+00	2,071	2,221	2,221	100	8,635
19+00	700	802	100	2,970	19+00	120	1,096	1,096	100	4,260
20+00	430	565	100	2,093	20+00	0			100	0
TOTAL				383,878	TOTAL				382,904	

The following 2 pages (not including this one),
belong to Chapter 5
Appendix V-15
Tables 1 and 4

This page is not to be inserted into the MRP, this page is only to inform you where the
tables belong; as there are no page numbers on them.

TABLE 1
AREA-VOLUME BALANCE SHEET
SLURRY POND NO. 5A

CUT					FILL (5% SHRINK FACTOR)				
STATION	END AREA (SQ. FEET)	AVERAGE AREA (SQ. FEET)	DISTANCE (FEET)	VOLUME BANK (CUBIC YARD)	STATION	END AREA (SQ. FEET)	AVERAGE AREA (SQ. FEET)	DISTANCE (FEET)	VOLUME (+ 5%) (CUBIC YARD)
0+00	0				0+00	0			
2+00	0	0	200	0	2+00	1,613	806.5	200	5,974
4+00	0	0	200	0	4+00	0	806.5	200	5,974
6+00	0	0	200	0	6+00	0	0	200	0
8+00	0	0	200	0	8+00	1,441	720.5	200	5,337
10+00	78	39	200	289	10+00	738	1,089.50	200	8,070
12+00	886	482	200	3,570	12+00	727	732.5	200	5,426
14+00	2,309	1,597.50	200	11,833	14+00	3,399	2,063	200	15,281
16+00	2,304	2,306.50	200	17,085	16+00	5,779	4,589	200	33,993
18+00	10,683	6,493.50	200	48,100	18+00	3,213	4,496	200	33,304
20+00		5,341.50		39,567	20+00	0	1,606.50	200	11,900

TOTAL = 120,444

TOTAL = 125,259

TABLE 4
AREA-VOLUME BALANCE SHEET
UPPER RAILROAD YARD

CUT					FILL (5% SHRINK FACTOR)				
STATION	END AREA (SQ. FEET)	AVERAGE AREA (SQ. FEET)	DISTANCE (FEET)	VOLUME BANK (CUBIC YARD)	STATION	END AREA (SQ. FEET)	AVERAGE AREA (SQ. FEET)	DISTANCE (FEET)	VOLUME (CUBIC YARD)
0+00	0	0	1600	0	0+00	0	0	1,600	0
16+00	0	1,081	200	8,007	16+00	0	0	200	0
18+00	2,162	1,251.50	200	9,270	18+00	0	629.5	200	0
20+00	341	1,139	200	8,437	20+00	1,259	629.5	200	4,663
22+00	1,937	1,541.50	200	11,419	22+00	0	0	200	4,663
24+00	1,146	2,034.50	200	15,070	24+00	0	0	200	0
26+00	2,923	2,527	200	18,719	26+00	0	0	200	0
28+00	2,131	1,766	200	13,082	28+00	0	0	200	0
30+00	1,401	1,042.50	200	7,722	30+00	0	0	200	0
32+00	684	342	200	2,533	32+00	0	0	200	0
34+00	0				34+00	0	0	200	0

NOTES: (1) Reclamation on sections 0+00 through 16+00 will consist of minor re-grading, coal removal and topsoil on track areas.
(2) Figures include removal of approximately 76,000 cubic yards of substitute topsoil.
(3) This volume is included as topsoil for prep plant area (Borrow Site)

APPENDIX VIII-5

2008 Bond Release

AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

ss.

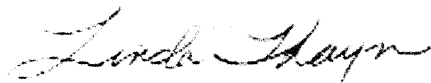
County of Carbon.)

I, Richard Shaw, on oath, say that I am the Publisher of the Sun Advocate, a twice-weekly newspaper of general circulation, published at Price, State a true copy of which is hereto attached, was published in the full issue of such newspaper for 4 (Four) consecutive issues, and the first publication was on the 27th day of December, 2007, and that the last publication of such notice was in the issue of such newspaper dated the 10th day of January, 2008.



Richard Shaw - Publisher

Subscribed and sworn to before me this 10th day of January, 2008.



Notary Public My commission expires January 10, 2007 Residing at Price, Utah

Publication fee, \$ 565.76



CERTIFIED TRUE COPY
CARBON COUNTY, UTAH
PRICE, UTAH 8450
COM. EXP. 01-10-2011

PUBLIC NOTICE

Application for Phase I Bond Release for Refuse Pile 2, Slurry Pond 4 and Slurry Pond 5 Main Cell

Hiawatha Coal Company
Hiawatha Mine Complex
Permit C007/011, renewed March 14, 2007
Carbon County, Utah

Hiawatha Coal Company, P.O. Box 1202, Huntington, UT 84528, has completed Phase I of the approved reclamation plan for approximately 95.9 acres of land related to Refuse Pile 2, and Slurry Ponds 4 and 5. The Phase I bond release application is based on completing the demolition, backfilling, grading, and drainage control requirements in accordance with the approved reclamation plan. The reclamation work applicable to this bond release was completed in the fall of 2000.

In accordance with the requirements of R645-301-880, of the State of Utah R645-Coal Mining Rules, notice is hereby given to the general public and all affected land owners that Hiawatha Coal Company is applying for partial release of the performance bond posted for this operation.

The Letter of Credit posted for the Hiawatha Mine Complex is \$2,800,000. Hiawatha Coal company is seeking Phase I release of \$1,220,000 from the calculated bond amount for reclamation activities completed in and around the town of Hiawatha.

The Slurry Ponds, Refuse Pile, and demolished structures are located on the Hiawatha and Poison Spring Bench, Utah, U.S. Geological Survey 7.5 minute quadrangle maps. This reclamation land is located in and around the town of Hiawatha on the following described lands:

Township 15 South, Range 8 East, SLB&M, Utah
Section 26: Portions of the SW1/4 SW1/4
Section 27: Portions of the SE1/4 SE1/4
Section 34: Portions of the NE1/4 NE1/4
Section 35: Portions of the W1/2 NW1/4

The Utah Division of Oil, Gas and Mining will now evaluate the proposal to determine whether it meets all the criteria of the Permanent Program Performance Standards according to the requirements of the Utah Coal Mining Rules.

Written comments, objections and requests for public hearing or informal conference on this proposal may be addressed to:

Utah Coal Program
Utah Division of Oil, Gas, and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Closing dates for submission of such comments, objections, and requests for public hearing or informal conference on this proposal must be submitted by February 10, 2008.

Published in the Sun Advocate December 27, 2007, January 3, January 6, and January 10, 2008.

Hiawatha Coal Company

P.O. Box 1240
Huntington, UT 84528

(435) 687-5777
FAX (435) 687-5724

David O. Kingston
ANR Company Inc.
1657 W Indiana Ave.
Salt Lake City, Utah 84104

January 29, 2009

Re: Notification of Application for Phase I Bond Release for Slurry Pond 4, Slurry Pond 5, Refuse Pile 2, and other small areas, Hiawatha Complex, C/007/011.

Dear Mr. Kingston:

Hiawatha Coal Company, P.O. Box 1240, Huntington, UT 84528, has completed Phase I of the approved reclamation plan for approximately 106.5 acres of land related to Refuse Pile 2, Slurry Ponds 4 & 5 and other non-refuse areas located around the town of Hiawatha. Additionally the demolition of several mining related structures located throughout the mining site has been completed. The Phase I portion of the bond release application is based on completing the demolition, backfilling, grading, and drainage control requirements in accordance with the approved reclamation plan. The reclamation work applicable to this bond release application was completed in the fall of 2000.

In accordance with the requirements of R645-301-880, of the State of Utah R645-Coal Mining Rules, notice is hereby given to the general public and all affected land owners that Hiawatha Coal Company is applying for partial release of the performance bond posted for this operation.

The current bond amount for this site is \$3,005,000. Hiawatha Coal company is seeking Phase I release of \$1,060,000 for reclamation activities completed in and around the town of Hiawatha.

The Slurry Ponds, Refuse Pile, and demolished structures are located on the Hiawatha and Poison Spring Bench, Utah, U.S. Geological Survey 7.5 minute quadrangle maps. This reclamation land is located in and around the town of Hiawatha on the following described lands:

Township 15 South, Range 8 East, SLB&M, Utah

Section 19: Portions of the	NE1/4 NW1/4
Section 20: Portions of the	NW1/4 SW1/4
Section 26: Portions of the	SW1/4 SW1/4
Section 27: Portions of the	SE1/4 SW1/4
Section 29: Portions of the	NW1/2
Section 32: Portions of the	E1/2 NW1/4
	S1/2 NE1/4
Section 34: Portions of the	NE1/4 NE1/4
Section 35: Portions of the	W1/2 NW1/4

Comments concerning bond release from the legal or equitable owner of record of the surface areas to be affected and from the Federal, Utah, and local government agencies or any interested parties should be mailed to Hiawatha Coal Company, Attention Cliff Baker, P.O. Box 1240 Huntington, Utah 84528.

If you have any questions, please call me at (435) 687-5777.

Thank You,

A handwritten signature in black ink, appearing to read "Cliff Baker", with a long horizontal flourish extending to the right.

Cliff Baker,
Environmental Coordinator

Mailed to :

Mr. Dave Levanger
Carbon County Planning and Zoning

Carbon County Commissioners

Mr. Phil Palmer
Price River Water Improvements District

Mr Patrick Gubbins
Bureau of Land Management

Mr. David Kingston
ANR Company

HIAWATHA MINE C/007/011

PHASE I BOND AMOUNT

BONDING CALCULATIONS

DIRECT COSTS

SUBTOTAL DEMOLITION AND REMOVAL		\$122,196.00	100%	\$122,196.00
SUBTOTAL BACKFILLING AND GRADING		\$316,643.00	60%	\$189,985.80
SUBTOTAL REVEGETATION		\$370,949.00	60%	\$222,569.40
SUBTOTAL DIRECT COSTS		\$809,788.00		\$534,751.20

INDIRECT COSTS

MOB/DEMOB	10.0%	\$80,979.00		\$80,979.00
CONTINGENCY	5.0%	\$40,489.00		\$40,489.00
ENGINEERING REDESIGN	2.5%	\$20,245.00		\$20,245.00
MAIN OFFICE EXPENSE	6.8%	\$55,066.00		\$55,066.00
PROJECT MANAGEMENT FEE	2.5%	\$20,245.00		\$20,245.00
SUBTOTAL INDIRECT COSTS	26.8%	\$217,023.00		\$217,023.00

TOTAL COSTS		\$1,026,811.00		\$751,774.20
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ESCALATION FACTOR		0.032		
NUMBER OF YEARS		1		
ESCALATION		\$32,858.00		\$32,858.00

PHASE I BOND ESCALATED		\$1,059,669.00		\$784,632.20
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PHASE I BOND AMOUNT 2009 DOLLARS (ROUNDED TO NEAREST \$1,000)		\$1,060,000.00		\$785,000.00
--	--	----------------	--	--------------

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Tipple 2 Operator Bld 03																			
	Structure's Demolition Cost	Mixed Materials Bld. Large	02 41 16 13 0100	0.3/CF	CF	11	11	8			1088					CF	0.35	1088 CF		327
	Disposal Cost Non Steel	City Services	City Service Price	4/CY	CY											CY		14 CY		56
	SUBTOTAL																			383
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition	Concrete Demo1	9.92/CY	CY	11	11	0.5			2					CY		2 CY		20
	Concrete Vol. Demolished																1.3	3 CY		
	Loading Cost	Front End Loader	31 23 16 42 1300	1.59/CY	CY													3 CY		5
	Transportation Cost	12 CY Dump Truck 1/2 mi. Rd. Trip	31 23 23 18 0320	3.79/CY	CY													3 CY		11
	Disposal Costs	Disposal on site	02 41 16 17 4200	8.8/CY	CY													3 CY		26
	SUBTOTAL																			62
	TOTAL																			445

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Galley 32																			
	Structure's Demolition Cost	Concrete Bld. Large	02 41 16 13 0050	0.41 /CF	CF	27.5	100	12			33000					CF	0.35	33000 CF		13530
	Disposal Cost Non Steel	City Services	City Service Price	4 /CY	CY											CY		428 CY		1712
	SUBTOTAL																			15242
	Concrete Demolition	Concrete Demolition	Concrete Demo1	9.92 /CY	CY	12	126	10			560					CY	1.3	560 CY		5555
	Concrete Vol. Demolished																	728 CY		
	Loading Cost	Front End Loader	31 23 16 42 1300	1.59 /CY	CY													728 CY		1158
	Transportation Cost	12 CY Dump Truck 1/2 mi. Rnd. Trip	31 23 23 18 0320	3.73 /CY	CY													728 CY		2719
	Disposal Costs	Disposal on site	02 41 16 17 4200	8.8 /CY	CY													728 CY		6406
	SUBTOTAL																			15834
	TOTAL																			31076

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Screen Crusher Silo Facility 33																			
	Concrete Demolition	Concrete Demolition	Concrete Demo 1	9.92/CY	CY	4	16	0.5			1					CY		1.3	1 CY	10
	Demolition Cost																			
	Concrete Vol. Demolished	Concrete Vol. Demolished	31 23 16 42 1300	1.59/CY	CY														1 CY	2
	Loading Cost	Front End Loader	31 23 16 42 1300	3.73/CY	CY														1 CY	4
	Transportation Cost	12 CY Dump Truck 1/2 mi. Rnd. Trip	31 23 18 0320	8.8/CY	CY														1 CY	9
	Disposal Costs	Disposal on site	02 41 16 17 4200																	25
	SUBTOTAL																			
	Concrete Demolition	Concrete Demolition	Concrete Demo 1	9.92/CY	CY	8	12	0.5			2					CY		1.3	2 CY	20
	Demolition Cost																			
	Concrete Vol. Demolished	Concrete Vol. Demolished	31 23 16 42 1300	1.59/CY	CY														3 CY	5
	Loading Cost	Front End Loader	31 23 16 42 1300	3.73/CY	CY														3 CY	11
	Transportation Cost	12 CY Dump Truck 1/2 mi. Rnd. Trip	31 23 18 0320	8.8/CY	CY														3 CY	26
	Disposal Costs	Disposal on site	02 41 16 17 4200																	62
	SUBTOTAL																			
	Concrete Demolition	Concrete Demolition	Concrete Demo 1	9.92/CY	CY	22	22	1			18					CY		1.3	18 CY	179
	Demolition Cost																			
	Concrete Vol. Demolished	Concrete Vol. Demolished	31 23 16 42 1300	1.59/CY	CY														23 CY	37
	Loading Cost	Front End Loader	31 23 16 42 1300	3.73/CY	CY														23 CY	86
	Transportation Cost	12 CY Dump Truck 1/2 mi. Rnd. Trip	31 23 18 0320	8.8/CY	CY														23 CY	202
	Disposal Costs	Disposal on site	02 41 16 17 4200																	504
	SUBTOTAL																			9
	Concrete Demolition	Concrete Demolition	Concrete Demo 1	9.92/CY	CY	4	8	0.5			1					CY		1.3	1 CY	10
	Demolition Cost																			
	Concrete Vol. Demolished	Concrete Vol. Demolished	31 23 16 42 1300	1.59/CY	CY														1 CY	2
	Loading Cost	Front End Loader	31 23 16 42 1300	3.73/CY	CY														1 CY	4
	Transportation Cost	12 CY Dump Truck 1/2 mi. Rnd. Trip	31 23 18 0320	8.8/CY	CY														1 CY	9
	Disposal Costs	Disposal on site	02 41 16 17 4200																	25
	SUBTOTAL																			
	Concrete Demolition	Concrete Demolition	Concrete Demo 1	9.92/CY	CY	22	22	1			18					CY		1.3	18 CY	179
	Demolition Cost																			
	Concrete Vol. Demolished	Concrete Vol. Demolished	31 23 16 42 1300	1.59/CY	CY														23 CY	37
	Loading Cost	Front End Loader	31 23 16 42 1300	3.73/CY	CY														23 CY	86
	Transportation Cost	12 CY Dump Truck 1/2 mi. Rnd. Trip	31 23 18 0320	8.8/CY	CY														23 CY	202
	Disposal Costs	Disposal on site	02 41 16 17 4200																	504
	SUBTOTAL																			9
	TOTAL																			

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Removed During Backfilling 34																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0012	0.29/CF							15687					CF	0.35	15687 CF		4549
	Disposal Cost Non Steel	City Services	City Service Price	4/CY												CY		203 CY		812
	SUBTOTAL																			5381
	Concrete Demolition																			
	Demolition Cost																			
	Concrete Vol Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	SUBTOTAL																			0
	TOTAL																			5381

Ref.	Description	Materials	Means Reference Number	Unit	Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Upper Retaining Wall 40																				
	Concrete Demolition																				
	Demolition Cost	Concrete Demolition	Concrete Demo 1	9.92	CY		38	1	10			14					CY		14	CY	139
	Concrete Vol. Demolished		31 23 16 42 1300	1.59	CY													1.3	18	CY	29
	Loading Cost	Front End Loader	31 23 23 18 0320	3.73	CY														18	CY	67
	Transportation Cost	12 CY Dump Truck 1/2 mi. Rnd. Trip	02 41 16 17 4200	8.8	CY														18	CY	158
	Disposal Costs	Disposal on site																			
	SUBTOTAL																				383

Ref	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Overland Conveyor Shed 46																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition	ConcreteDemo1	9.92/CY	17 CY															
	Concrete Vol. Demolished																			
	Loading Cost	Front End Loader	31 23 16 42 1300	1.59/CY																
	Transportation Cost	12 CY Dump Truck 1/2 mi. Rnd. Trip	31 23 23 18 0320	3.73/CY																
	Disposal Costs	Disposal on site	02 41 16 17 4200	8.8/CY																
	SUBTOTAL																			1553
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition	ConcreteDemo1	9.92/CY	11 CY															
	Concrete Vol. Demolished																			
	Loading Cost	Front End Loader	31 23 16 42 1300	1.59/CY																
	Transportation Cost	12 CY Dump Truck 1/2 mi. Rnd. Trip	31 23 23 18 0320	3.73/CY																
	Disposal Costs	Disposal on site	02 41 16 17 4200	8.8/CY																
	SUBTOTAL																			306
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition	ConcreteDemo1	9.92/CY	15 CY															
	Concrete Vol. Demolished																			
	Loading Cost	Front End Loader	31 23 16 42 1300	1.59/CY																
	Transportation Cost	12 CY Dump Truck 1/2 mi. Rnd. Trip	31 23 23 18 0320	3.73/CY																
	Disposal Costs	Disposal on site	02 41 16 17 4200	8.8/CY																
	SUBTOTAL																			432
	TOTAL																			2391

Reclaimed Areas	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
Backfill Prep Plant 009															
Cut and fill Sites															
D11R U EROPS (9-52) (2nd 2007)	46405	204.15	0.1	60.1	574.7	1	575 \$/HR		294626 cy		2322 cy/hr		126.9 hr		72968
Sediment Pond Regrading															
D11R U EROPS (9-52) (2nd 2007)	46405	204.15	0.1	60.1	574.7	1	575 \$/HR		66000 cy		2322 cy/hr		28.4 hr		16330
Subtotal															89293

VOLUMES TAKEN FROM APPENDIX VIII-1

Table 1

Slurry pond 5 739396 618952

from appendix V-15

slurry pond 5A

Table 2

Slurry pond 4 291996

Table 3

Slurry pond 1 383578

Table 4

Upper Rail Yard (from App V-15)

9326

As most is borrow material

total volume remaining

NOTE: WE ARE CLAIMING ALL THE SEDIMENT POND VOLUMES AS THEY ARE INCLUDED IN THE AREA VOLUMES.

	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
Topsail Borrow Area 012															
Grading INSTALL CROSSING															
D9R Semi-U EROPS (9-52) (2H2007)	19405	95.3	0.1	60.1	286.21	1	286 \$/HR		370 cy		1106 CY/HR		0.3 HR		86
Remove Stream Crossing															
D9R Semi-U EROPS (9-52) (2H2007)	19405	95.3	0.1	60.1	286.21	1	286 \$/HR						8.7 HR		0
Install Channel Collector in Borrow Area															
D6R XL Series III (9-51) (2nd 2007)	10295	48.9	0.1	60.1	178.23	1	178 \$/HR						40 HR		7120
24" Riprap									1000 CY				13.2/CY		13200
Filter Gravel									400 CY				11/CY		4400
Subtotal															24806

	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
Support 013															
South Fork															
5000 Gal water truck	29.38	35.70	0.1	45.5	117.08	1	117 \$/HR	0 HR					0 HR		0
Truck 3/4 Ton 4x4	3.66	52.85	0.1		62.16	1	62 \$/HR	0 HR					0 HR		0
Foreman Average, Outside					62.10	1	62 \$/HR	0 HR					0 HR		0
Middle Fork															
5,000 gal H2O truck Diesel (20-17) (2nd2006)	29.38	35.70	0.1	45.5	117.08	1	117 \$/HR	0 HR					0 HR		0
Pickup Truck Crew 4x4 1 ton (20-17) (2nd2006)	3.66	52.85	0.1		62.16	1	62 \$/HR	0 HR					0 HR		0
Foreman Average, Outside					62.10	1	62 \$/HR	0 HR					0 HR		0
North Fork															
5,000 gal H2O truck Diesel (20-17) (2nd2006)	29.38	35.70	0.1	45.5	117.08	1	117 \$/HR	0 HR					0 HR		0
Pickup Truck Crew 4x4 1 ton (20-17) (2nd2006)	3.66	52.85	0.1		62.16	1	62 \$/HR	0 HR					0 HR		0
Foreman Average, Outside					62.10	1	62 \$/HR	0 HR					0 HR		0
Prep Plant															
5,000 gal H2O truck Diesel (20-17) (2nd2006)	29.38	35.70	0.1	45.5	117.08	1	117 \$/HR	126.9 HR					126.9 HR		14847
Pickup Truck Crew 4x4 1 ton (20-17) (2nd2006)	3.66	52.85	0.1		62.16	1	62 \$/HR	126.9 HR					126.9 HR		7868
Foreman Average, Outside					62.10	1	62 \$/HR	126.9 HR					126.9 HR		7868
Topsoil															
5,000 gal H2O truck Diesel (20-17) (2nd2006)	29.38	35.70	0.1	45.5	117.08	1	117 \$/HR	85.3 HR					85.3 HR		9980
Pickup Truck Crew 4x4 1 ton (20-17) (2nd2006)	3.66	52.85	0.1		62.16	1	62 \$/HR	85.3 HR					85.3 HR		5289
Foreman Average, Outside					62.10	1	62 \$/HR	85.3 HR					85.3 HR		5289
Subtotal															51141

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	North Fork Veg 003																			
	Scarify total area to be reclaimed	75 HP Dozer w/scarifier	32 91 13 23 3100	4.53 MSF						6.6									287 MSF	1300
	Apply Fertilizer	Fertilizer Hydro Spread	32 01 90 13 0180	3.21 MSF						6.6									287 MSF	921
	Drill Seeding	Tractor spreader	REVEG004	13.34 MSF						6.6									287 MSF	3829
		South and Middle Forks	HiawathaVeg003	726/AC																
	Mulch																			
	2 tons per acre	Hay Bale	reveg007	166.1 TON						6.6									13.2 tons	2193
	Subtotal																			8243
	Reveg Assume 25% reseeding																			2081
	Subtotal																			2081
	Total																			10304

RA	ACREAGE DESCRIPTION	AREA CLAIMED	AREA REMAINING
	0.5 North Fork Diversion	0.5	0
	1 North Fork Vent Portal	1	0
	5.1 North Fork Road	5.1	0
	total	6.6	0

Ref	Description	Materials	Means Reference Number	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Prep Plant Veg 004																		
	Scarify total area to be reclaimed	75 HP Dozer w/scarifier	32 91 13 23 3100	4.53 MSF					118.05						AC		5142 MSF		23293
	Apply Fertilizer	Fertilizer Tractor Spread	32 01 90 13 0130	3.21 MSF					118.05						AC		5142 MSF		16506
	Disc harrow along contour	300 H P (D8)	15 54 433 20 4310	1140.8 MSF											HR		4.4 Day		5020
		Est Op. Medium Equipment		60.1 HR											HR		35.2 HR		2116
	Drill Seeding	Tractor Spreader	Reveg004	13.34 MSF					103.2						AC		4757 MSF		63458
		Ponds, Refuse areas	Hawaii/Veg002	855 /AC					103.2						AC		109.2 AC		93366
	Mulch	Hay Bale	Reveg007	166.1 /Ton					109.2						AC		218.4 tons		36276
	2 tons per acre														AC				
	Hydroseed steep areas	Hydro Spreader	Reveg005	23.15 MSF					8.8						AC		383 MSF		8866
		Ponds, Refuse areas	Hawaii/Veg002	855 /AC					8.8						AC		8.8 AC		7524
	Subtotal																		256425
	Reveg Assume 25% reseeding																		64106
	Subtotal																		64106
	Total																		390331

NOTE: THE ACREAGE FOR THE BORROW AREAS WERE INCLUDED IN THIS SHEET AND AGAIN IN TAB 005, THUS WE ARE BALANCING THE DIFFERENCE TO ACCURATELY DEPICT THE COSTS. TO BALANCE WE TAKE THE CURRENT ACREAGE (211.3 AC) - THE TOTAL REMAINING LESS BORROW AREAS (93.25AC) = 118.05AC TO INPUT AS AREA CLAIMED

CURRENT ACREAGE =	211.3
AREA CLAIMED =	118.05
0.925225	109.2
0.074775	8.8

RA	ACREA	DESCRIPTION	AREA CLAIMED	AREA REMAINING
	29.11	SED PONDS/MISC AREAS	19.83	9.28
	40.39	POND 5 MAIN CELL	40.39	0
	15.51	BORROW AREA A	0	15.51
	16.87	POND 4/REFUSE PILE 2	5.28	11.59
	26.37	BORROW AREA F	26.37	0
	9.12	PREP PLANT/ BORROW	9.12	0
	3.72	PREP PLANT/ DEPO	0	3.72
	20.15	WAREHOUSE/EQUIPMENT YARD	14.64	5.51
	2.87	REFUSE PILE 1	2.87	0
	17.51	POND 1	17.51	0
	19.39	RIDGE BORROW - NON REFUSE	19.39	0
	1.92	REFUSE	0	1.92
	6.38	RAIL TRACKS	0	6.38
	2.84	UPPER RAIL STORAGE	0	2.84
	6.3	UPPER RAIL BORROW	0	6.3
	2.01	TRUCK SHOP	0	2.01
	221.36		106.5	114.86

TOTAL	221.36	106.5	114.86
TOTAL LESS BORROW AREAS	93.25		

TOTAL	CLAIMED	REMAINING	USE	18" REMOVAL
55.04	25.34	29.7		
130.31	66.76	63.55		
36.01	14.4	21.61		
221.36	106.5	114.86	25.34 acrea	14.4 acrea
185.35	92.1	93.25	1103810 sqft	627264 sqft
			551805.2 cft	940896 cft
			20441 cy	34848 cy

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Topsail Borrow 005																			
	Scarf total area to be reclaimed	75 HP Dozer w/scarifier	32 91 13 23 3100	4.53 MSF						14.4									627 MSF	2840
	Apply Fertilizer	Fertilizer Tractor Spread	32 01 90 13 0130	3.21 MSF						14.4									627 MSF	2013
	Disc harrow along contour	300 H. P. (D8) Eq. Op. Medium Equipment	15 54 433 20 4310	1140.8 MSF 60.1 HR											8.7 8.7		HR HR		1.1 Day 8.7 HR	1255 523
	Drill Seeding	Tractor Spreader Ponds, Refuse areas	Reveg004 HiawathaVeg002	13.34 MSF 885/AC						14.4 14.4							AC AC		627 MSF 14.4 AC	8364 12312
	Mulch 2 tons per acre	Hay Bale	Reveg007	166.17/ton						14.4							AC		28.8 tons	4784
	Subtotal																			32091
	Reveg Assume 25% reseeding																			8023
	Subtotal																			8023
	Total																			40114

14.4 acres
627284 sqft
940896 cft
34848 cy

Ref.	Description	Materials	Means Reference Number	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	North Fork Veg 003																		10304
	Prep Plant Veg 004																		320531
	Topsoil Borrow 005																		40114
	TOTAL																		370948

COPYC/007/011 Incoming
K**Hiawatha Coal Company****P.O. Box 1240
Huntington, UT 84528****(435) 637-1778
FAX (435) 637-1378****John R. Baza
Utah Division of Oil, Gas & mining
1954 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, UT 84114-5801****January 29, 2009****Re: Approval with Stipulation of Phase I Bond Release, Hiawatha Mine,
C/007/0011, Task ID# 3104.****Dear Mr. Baza:**

This letter is in response to your list of Stipulations dated January 13, 2009 for conditional approval on Hiawatha Mine Phase I Bond Release.

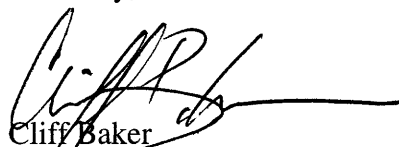
Stipulation A- Please find Five (5) Clean Copies of the Bond Release Application which encompasses all the narratives, tables, maps and any other information included in all six (6) submittals.

Stipulation B- The Revision to Exhibit V-13 will not be performed as this map reflects the proposed final topography of the Prep Plant Area. Provided in the original application are copies of Exhibit V-9 (Storage and Refuse Facilities) which shows accurate existing surface topography of slurry pond 5A, borrow areas A and F. Also included in the original application is Exhibit VII-18 (Borrow Area A), which reflects current topography as well as cross-sections of Current vs. Proposed Final topography. This was discussed with Priscilla Burton and myself, in the Price Office on Monday, January 26, 2009 and was agreed by both parties that these maps would satisfy the Stipulation.

A clean hard copy was also provided to the Price Office.

If you have any questions, please call me at (435)636-5777 (X-2501).

Sincerely,


Cliff Baker

Environmental Coordinator

File in:

C/007/0011 1009 Incoming

Refer to:

☐ Confidential

☐ Shelf

☒ Expandable

Date 01/29/09 for additional information

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COPY

Mine: HIAWATHA COMPLEX

Permit Number: ACT/007/011

Title: Bond Release

[illegible]

C-2 Form being sent to show what is included in packet.
"Table of Contents"

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